

ABSTRACT

Provided is an in-plane response-type liquid-crystal display device having a sufficiently high contrast ratio enough to display high-quality images. The device is free from the problem of light leak to be caused by spacers, and is free from the problem of rough surface appearances. In the device, the surface of each spacer is coated with a thermoplastic polymer prepared through graft polymerization of a molecular compound having a vinyl group or a polymerization initiator, with one or more polymerizable monomers. The functional groups existing in the surface of each spacer are bonded to the alignment layers adjacent to the spacers via van der Waals bonding or hydrogen bonding, whereby the spacers are fixed onto the orientation film on at least one of the electrode substrate and the color filter substrate constituting the device. The bonds are extremely small, and the region around the spacers through which light will leak is much reduced. In addition, the spacers are prevented from moving to scratch the neighboring alignment layers, and light leak through the device is prevented. The spacers preferably have a number of long-chain alkyl groups each having at least 6 carbon atoms in their surfaces, and light leak around the spacers is well prevented.